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# Brand-Extension Price Premiums: The Effects of Perceived Fit and Extension Product Category Risk

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*One of the assumed benefits of extending a strong brand into a new product category is the ability to capture a price premium relative to comparable products associated with lower equity brands. The authors argue that brand-extension price premiums accrue in part due to the ability of a known brand to reduce the perceived risk customers experience in making purchase decisions. Accordingly, price premiums can be expected to vary depending on the risk associated with a purchase decision. The authors manipulated perceived fit between a brand and extension products and three dimensions of extension product category risk. They found that brand-extension price premiums are positively related to the perceived fit between the brand and the extension category. However, this relationship varies considerably depending on the levels of financial and social risk associated with the extension product category. Implications of these findings for theory, practice, and future research are discussed.*

**Keywords:** *brand extensions; brand equity; pricing; risk*

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Relative to new or less established brands, extensions of strong brands are assumed to (a) obtain greater introductory market share (b) at a price premium with (c) less investment in marketing communications. Prior work has examined the effect of brand extensions on market share and advertising efficiency (e.g., Aaker 1996; Smith 1992;

Smith and Park 1992). The third financial implication of brand extensions, the extent to which they can command price premiums, has gone largely unexplored. This is of particular concern given the importance of correctly pricing new products—small differences in price frequently have sizable implications for bottom-line profit (Marn and Rosiello 1992). Hence, knowledge of factors affecting brand-extension price premiums is of considerable importance and provides the focus of our study.

In examining the price implications of brand extensions, we draw on theory and evidence regarding how consumers use brand names in decision-making. Brand names are often viewed as schemas containing brand attributes and beliefs about brand-related experiences (e.g., Gurhan-Canli and Maheswaran 1998; Sujan and Bettman 1989). The accumulated knowledge stored in the schema for a well-established brand may allow a consumer to use the brand as a heuristic to reduce the perceived risk surrounding purchase decisions (Cox 1967; Wernerfelt 1988). The basic rationale for brand-extension price premiums is that these risk-reducing benefits have value and that some of that value should accrue to the firm in the form of a price premium. However, there are likely to be conditions that affect the extent to which consumers rely on a brand to reduce risk.

In the context of brand extensions, the ability of an established brand to reduce risk and hence capture a price premium depends in part on how confident a consumer is in generalizing his or her brand beliefs to the new product context. The transfer of brand beliefs to an extension, in turn, is affected by the degree to which the brand is perceived as fitting with the extension product category (e.g.,

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Aaker and Keller 1990; Gronhaug, Hem, and Lines 2002; Park, Milberg, and Lawson 1991). Therefore, one of the variables we consider is the degree of perceived fit between the brand and extension product category.

To the extent that brand-extension price premiums are derived from the brand's ability to reduce risk, the consumer benefits accorded to a strong brand should be affected by the risk inherent in the extension product category. That is, reliance on brand names to reduce risk is affected by the extent to which risk is present. Accordingly, brand-extension price premiums should be sensitive to the degree of risk associated with the extension category. In this study, we examine the effects of three widely recognized types of risk that vary by product category—financial, performance, and social.

We also expect product category risk to interact with perceived fit to affect brand-extension price premiums. As noted above, the ability of a strong brand to reduce risk is affected by perceived fit. High fit is thus expected to be particularly valuable to consumers when faced with higher risk purchase decisions and will add less value under conditions where risk is minimal.

Our research makes a number of contributions to both theory and practice related to brand equity management. Regarding theory, perceived fit is one of the most widely studied constructs in brand extension research. These studies typically rely on evaluative measures of brand extensions such as perceived quality or liking (e.g., Aaker and Keller 1990; Dacin and Smith 1994; Gronhaug et al. 2002). By using price premium as a dependent variable, we augment knowledge of how fit affects brand extension success. Specifically, we demonstrate that the effect of fit on brand-extension price premiums (a) occurs even after controlling for the effects of favorability of consumer evaluations of the extension and (b) varies depending on the risk associated with the extension category.

At a more general level, little research has been done on the financial aspects of brand extensions. A better understanding of factors that affect brand-extension price premiums contributes to our ability to model a brand's financial equity. A major component of a brand's value is its contribution to the success of new products or what has been referred to as a brand's latent value (Srivastava and Shocker 1991). The latent value of a brand has been conceptualized as the difference in the discounted value of expected future cash flows between an established brand and a new brand summed across the array of feasible products to which the new brand can be extended. An important determinant of the cash flow differential between a brand extension and a new brand is the price premium attributable to the established brand name.

Regarding marketing practice, many brand extensions involve licensing agreements in which brand extensions (e.g., Ralph Lauren house paint) are implemented via partnerships with a company that possesses appropriate manu-

facturing skills and/or channel relationships (e.g., Sherwin Williams). A fundamental challenge in negotiating these agreements is determining the licensing fees paid to the brand owner such that they reflect the economic gains expected to arise from the use of the brand by the partnering firm. The expected price premium a brand can earn is an important consideration in arriving at a brand licensing fee. To the extent that price premiums vary across readily measurable properties of an extension product category, licensing contracts can be structured more appropriately.

Furthermore, extending a brand into new categories exposes the brand to some degree of risk (John, Loken, and Joiner 1998; Loken and John 1993; Sullivan 1990). By knowing in advance that a proposed extension category has properties that are not conducive to substantive financial benefits (e.g., price premiums), managers will be able to make a more accurate risk-return assessment.

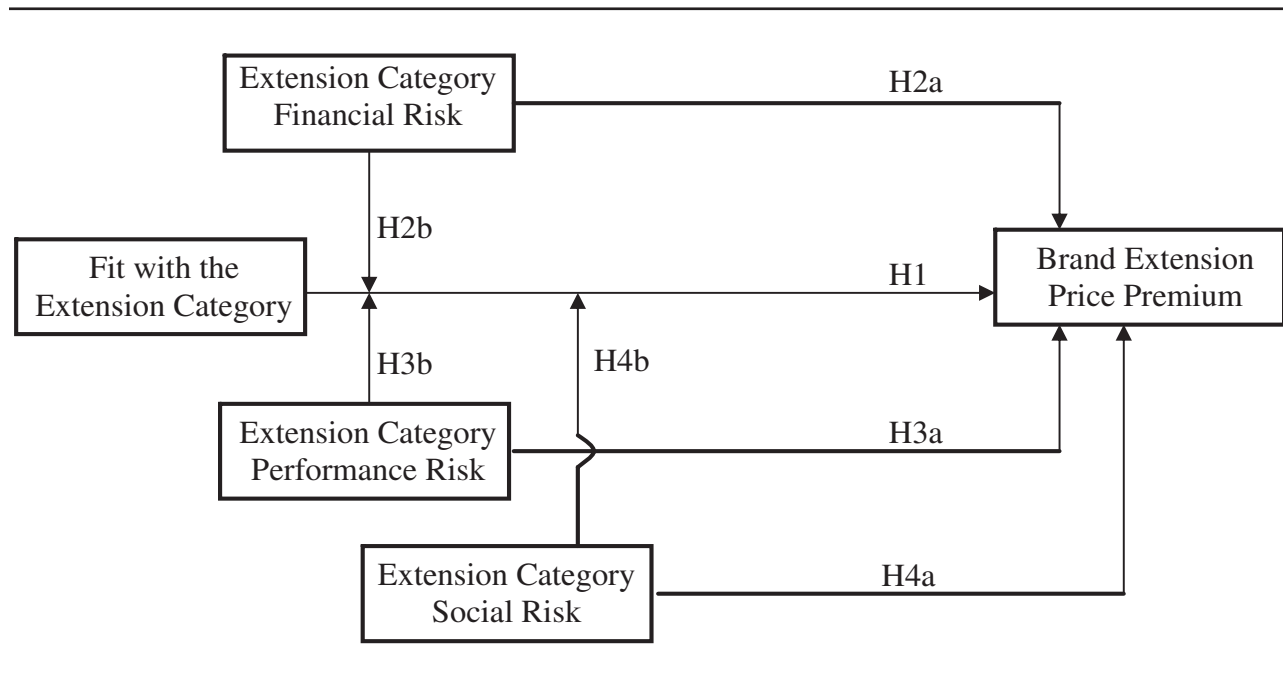
In the following section, we discuss how established brands reduce purchase-related risk. This discussion provides the basic rationale for brand-extension price premiums, the role of fit in affecting price premiums, and suggests product category conditions that should affect the magnitude of such premiums. We then develop specific hypotheses regarding how perceived fit and the types of risk associated with an extension category are expected to affect brand-extension price premiums. Following a discussion of the method used to test our hypotheses, we present our results and discuss their implications for marketing theory and practice.

## PERCEIVED RISK AND BRAND-EXTENSION PRICE PREMIUMS

Three types of risk are commonly associated with purchase decisions: financial, performance, and social (e.g., Dowling and Staelin 1994; Taylor 1974). Each type of risk is generally viewed as being composed of two components (Bauer 1967; Conchar, Zinkhan, Peters, and Olavarrieta 2004; Cunningham 1967). The first component involves the outcomes associated with a purchase decision. Negative outcomes can occur due to "downside" or "upside" risk. Downside risk arises from potential losses due to product performance that is below an acceptable level. Upside risk reflects the foregone positive consequences that could have accrued via the selection of a competing brand. The second component of risk relates to the certainty of the outcomes. As potential outcomes are perceived to become either more negative or more uncertain, the level of perceived risk associated with the purchase increases.

Established brands provide an implied promise that purchase outcomes will be consistent with the beliefs and expectations that customers have historically associated with the brand (Erdem and Swait 1998; Wernerfelt 1988).

**FIGURE 1**  
**Conceptual Model of the Effects of Extension Category Characteristics**  
**on Brand-Extension Price Premiums**



Therefore, it is not surprising to find that consumers rely extensively on brands to handle risk (Montgomery and Wernerfelt 1992; Roselius 1973; Sheth and Venkatesan 1968). In the case of a brand extension, consumers are able to draw on their knowledge of, and beliefs about, the parent brand to make inferences about the experience they are likely to have with the extension. In essence, brand extensions allow consumers to use their experiences with other products affiliated with the brand as a surrogate for experience with the new product.

Even if consumers do not have extensive personal experience with a brand, the brand name can still serve as a vehicle for reducing risk. When a company extends an established brand name to a new product, the company is using the brand as an implicit "bond" for the quality of the product (Wernerfelt 1988). Specifically, the considerable investment companies undertake in developing a brand serves as a form of collateral for the new product. Consumers are assumed to reason that a firm would not endanger the investment in its brand by attaching it to a substandard product.

How does a brand's ability to reduce risk translate into a price premium? The ability of a known brand to increase the certainty associated with a purchase should have value that is reflected in an extension product's price. To see why this should be so, consider the parallels between financial investors and consumers with respect to risk. Just as investors in financial markets are risk averse, so too are consum-

ers as they invest in products (Erdem 1998). In financial markets, risk aversion dictates that for investors to accept a certain level of risk, they must be compensated with expected returns commensurate with the risk. A high-risk bond, for example, comes at a lower face value, thus allowing a higher potential return at maturity. Extending this analogy, for consumers to accept risk (financial, performance, or social), they must be compensated. As with a high-grade bond, all else equal, a lower risk purchase (i.e., one of a proven brand) should correspond to a higher price.

Following from the above discussion, we expect that an extension of a strong brand will earn a price premium relative to the same product introduced with a less established brand. However, this price premium will be elevated (suppressed) in extension categories where risk is relatively high (low). In the next section, we develop hypotheses regarding the effects of several extension product category characteristics expected to affect perceived risk. The resulting model is displayed in Figure 1.

## HYPOTHESES

### Fit Between the Brand and Extension Category

The ability of an established brand to reduce the uncertainty associated with a particular extension category lies

primarily in the fit between the brand and the category (Minnesota Consumer Behavior Seminar 1987; Smith and Andrews 1995). By “fit,” we are referring to the degree of similarity between an extension product category and existing products affiliated with the brand. Similarity between the existing products affiliated with the brand and the extension category can be construed holistically (e.g., Morrin 1999; Park et al. 1991; Tauber 1988), in terms of needs satisfied by the products (e.g., Smith and Park 1992), situations in which they are used (e.g., Dacin and Smith 1994), skills needed to manufacture them (e.g., Aaker and Keller 1990), or their physical features (e.g., Smith and Park 1992). Regardless of the manner in which fit is conceptualized, as fit increases, consumers can more confidently transfer their favorable associations of an established brand to the brand extension, which in turn contributes to the formation of positive evaluations of the extension product (e.g., Aaker and Keller 1990; Gronhaug et al. 2002) and reduces the perceived likelihood and/or severity of negative outcomes (DelVecchio 2000). Accordingly, we expect to see a positive relationship between fit and the price premium consumers are willing to pay for a brand extension.

*Hypothesis 1:* Fit will have a positive effect on brand-extension price premiums.

### **Risk Associated With the Extension Product Category**

The preceding section suggests that the value consumers place on fit is due to its ability to mitigate the uncertainty and/or magnitude of negative outcomes when purchasing an extension product. The certainty and magnitude of outcomes are defined by the various types of risk associated with product purchase and use. In the following sections, we outline how the level of risk faced by consumers making a purchase in the category affects brand-extension price premiums. Furthermore, we consider how each type of risk is likely to moderate the expected positive relationship between extension fit and price premiums set forth in Hypothesis 1.

*Financial risk.* The first type of product risk we consider is financial risk. Financial risk refers to the economic outlays that may be lost if a product does not perform adequately (e.g., Grewal, Gottlieb, and Marmorstein 1994; Hjorth-Andersen 1987). To mitigate financial risk, we expect that consumers will pay more to obtain an established brand. This may seem contradictory in that it appears that consumers will increase their financial risk by paying more for a product in order to reduce their financial risk. However, returning to the analogy of an investor in a financial market, this is akin to investors considering the purchase of a bond. To lessen their level of risk when purchas-

ing a bond with a given par value, investors can pay more (accept a lower expected return) to buy a bond with a higher rating. Extending this example to consumer markets, we expect the following:

*Hypothesis 2a:* Financial risk of the extension product category will have a positive effect on brand-extension price premiums.

In addition to its main effect, we also expect that financial risk will moderate the relationship between brand extension fit and price premiums. Per Hypothesis 1, the extent to which a brand derives a price premium is related to the degree of fit between the brand and the extension product category. This expectation is based on the beliefs that fit with a product category serves to reduce purchase-related risk and that consumers will pay to reduce risk. The value of this risk reduction should be a function of the level of risk faced by consumers. When risk is minimal, brands play a less important role in decision-making, and hence, the effect of perceived fit on price premiums is expected to diminish. On the other hand, the price premium awarded to a brand extension that fits well with the extension category should be elevated in categories characterized by high risk. Given that no product category is completely free from risk, brands that have high fit with an extension category should always earn a price premium relative to brands that have low fit with an extension category. However, the degree to which a brand of high fit is rewarded should increase as risk increases. Applying this logic to financial risk results in Hypothesis 2b.

*Hypothesis 2b:* The positive effect of fit on brand-extension price premiums will increase as the financial risk of the extension category increases.

*Performance risk.* Losses associated with the purchase of a product are often the result of the product's failure to meet consumers' performance expectations. As opposed to financial risk, which reflects the cost of product replacement, performance risk arises through the potential reduced utility and physical or emotional harm resulting from substandard performance (e.g., Bauer 1967; Grewal et al. 1994). Thus, a category may have significant performance risk (e.g., the possibility of continued discomfort in the antacid product category) and minimal financial risk (i.e., \$4.99 to buy a different antacid).

The performance risk perceived by a consumer increases as the likelihood and/or severity of negative performance-related outcomes increases. The likelihood of negative outcomes, in turn, is related to the degree of quality variance in a given product category. If all products in a category are viewed as being equally likely to provide a satisfactory outcome, the uncertainty associated with purchasing a product in the category is independent of the



brands competing in the category (e.g., Bettman 1973), thereby reducing the need for consumers to manage their risk exposure via brand choice. Likewise, as extension category quality variance increases, consumers should be more inclined to pay a premium to obtain a highly regarded brand to mitigate the associated risk. The expectation that price premiums will be positively related to performance risk is formalized in Hypothesis 3a. In this study, although we do not explicitly test the effects of perceived product quality variance on price premiums, we rely on it, along with the severity of performance-related outcomes, as the basis for manipulating performance risk. As the elements that drive performance risk in a category increase, so too should consumers' willingness to pay for a brand that will help mitigate this risk. Hypothesis 3a summarizes the expected relationship:

*Hypothesis 3a:* Performance risk of the extension product category will have a positive effect on brand-extension price premiums.

In addition to this main effect, applying the logic leading to Hypothesis 2b to performance risk leads to the expectation that performance risk will also moderate the effect of fit on price premiums. Specifically, consumers should be willing to pay more for the risk-reducing benefits of an established brand that fits well with an extension category when performance risk is high than when performance risk is low. Hypothesis 3b captures this expectation.

*Hypothesis 3b:* The positive effect of fit on brand-extension price premiums will increase as performance risk of the extension category increases.

*Social risk.* Consumers often face social consequences when purchasing a product. Social risk is present in a brand choice environment to the extent that consumers believe their peers may evaluate them negatively due to a purchase they make (Harrell 1986). As an example, by positioning their product as the "in" look or brand, brands in the apparel industry play on their ability to alleviate social risk. The social risk associated with the purchase of a product category is a function of the degree to which product consumption is public in nature (e.g., Bearden and Etzel 1982). However, the social risk associated with the purchase of a particular brand includes not only the aspect of public consumption but also the extent to which the product is one that is visibly branded. For instance, although dress shoes and belts are conspicuous products, identifying the brand of a dress shoe or belt as they are being worn is typically a difficult task. On the other hand, manufacturers of athletic shoes have gone to great lengths to make their brands readily visible while the product is in use. Social risk increases to the extent that the product is subject to peer evaluation and is visibly branded.

A number of researchers have found that social risk influences brand choice (e.g., Bearden and Etzel 1982; Childers and Rao 1992). Bearden and Etzel found that the opinions of others become more important in the brand selection process as the extent to which a product is visibly consumed increases. By extension, consumers should be willing to pay a premium for a brand that they and others are known to view favorably when social risk is present. Furthermore, as with financial and performance risk, social risk should moderate the effect of fit on price premiums such that brand extensions with higher category fit are rewarded with a greater premium under circumstances of high social risk than under low social risk.

*Hypothesis 4a:* Social risk of the extension product category will have a positive effect on brand-extension price premiums.

*Hypothesis 4b:* The positive effect of fit on brand-extension price premiums will increase as the social risk of the brand extension category increases.

## METHOD

### Participants

Data were collected via an experiment. Just as a brand managers tailor product offerings to appeal to a target market, the product in the experimental stimuli are designed to target a specific market segment. Out of convenience, the targeted segment is college students. The sample consisted of 297 undergraduate students at a large southeastern university. Students participated in one of two large groups as part of a class requirement and were told that they were part of a study contracted by a company that was considering entry into a new product category. Upon arriving for the experiment, participants were given a response booklet that randomly assigned them to one of the experimental conditions. Responses from 9 participants were removed from the analysis due to missing data. Thus, a total of 288 participants contributed brand extension evaluations.

### Experimental Procedure

*Stimuli.* The three types of risk and fit between the brand and the extension category were manipulated to be high or low across two categories in a 2 (fit)  $\times$  2 (financial risk)  $\times$  2 (performance risk)  $\times$  2 (social risk)  $\times$  2 (product category) between-subjects factorial design. Wireless smart displays and combination vacuum cleaners were selected as the product categories. Categories with which the sample is somewhat unfamiliar were selected to credibly manipulate risk. Participants first read a product description page. Appendix A includes the product descrip-

tion page for the combination vacuum product. The product description began with a brief discussion of the functions, features, and benefits of the product. To appeal to the sample segment and to promote more than a trivial level of interest in the task, the product description was followed by a statement identifying college students as a key target market for the product. For the wireless smart display category, the product description and target market information read as follows:

Wireless smart displays communicate with your existing computer to allow users to experience always-on, anytime mobile connectivity from anywhere in the home. Smart displays are designed for consumers who want access to their PC in different rooms in their homes, away from the desktop. Smart displays allow you to remotely access everything on your home computer in a manner that is free from power supplies, cords, and wires so that you can work on your computer just like you're in front of your PC, no matter where you are in your home.

Smart displays are typically offered with everything you need to get up and running right out of the box, including integrated wireless support, a USB wireless adapter solution, and an upgrade to the Microsoft Windows XP Professional operating system.

Manufacturers of smart displays view college students as a key market due to the ability of multiple housemates to access one computer while working at various locations in the house. They also feel that smart displays will fit in with students' lifestyles after they graduate.

Participants then read an evaluation of the brands competing in the product category that was credited to *Consumer Electronics* magazine. The evaluative paragraph served to manipulate performance risk. Consistent with the definition of performance risk, the manipulation addressed both the likelihood and magnitude of performance-related losses. The paragraphs below present the low- and high-performance-risk conditions.

*Consumer Electronics* magazine had this to say about the various brands: Wireless smart displays are relatively simple products to produce. This may explain why the quality difference between brands is minimal. Extensive tests of smart displays with 15-inch monitors that considered performance, ease of use, and durability resulted in overall evaluations that displayed little variation across brands. Although smart displays communicate with your existing computer, they all include programs that protect the information on your computer. Thus, the risk of damage or loss of information on your existing computer is very small.

*Consumer Electronics* magazine had this to say about the various brands: wireless smart displays are relatively difficult products to produce. This may explain why the quality difference between brands is significant. Extensive tests of smart displays with 15-inch monitors that considered performance, ease of use, and durability resulted in overall evaluations that displayed considerable variation across brands. Since the smart display communicates with your existing computer, it accesses all of the information on your computer. Although not highly common, errors in this process have been known to damage or erase large chunks of information on people's existing computers.

To manipulate social risk, the product description above was followed by information regarding the likely interest of others in the participants' wireless smart display purchase in the high, but not the low, social risk condition:

*Consumer Electronics* also reminds you to recognize that when buying a smart display, whatever choice you make will come under scrutiny by your family, friends, and even acquaintances who are likely to want to see and learn more about this new product.

Price premiums reflect the amount consumers are willing to pay for a brand in comparison to another product offering the same set of benefits (Aaker 1991; Holbrook 1992). Therefore, to measure price premiums, a comparison product is necessary. To avoid the potential confounds arising from consumers' beliefs regarding well-known national brands, we opted to define the comparison as an average brand offering the same attributes as the brand extension. Thus, the product information page ended by providing a price anchor for "an average" product in the category. To manipulate financial risk, participants in the low-financial-risk condition read that "new low-interest financing programs allow you make monthly payments of 1% of the base price (e.g., \$10 a month for a \$1,000 wireless smart display)." To equate the monthly payment across product categories, participants exposed to the combination vacuum product category read that "new low-interest financing programs allow you make monthly payments of 2% of the base price (e.g., \$10 a month for a \$500 combination vacuum)." These statements serve to lower the initial financial outlay and provide a means (discontinued payment) to reduce the long-term financial commitment should the product malfunction.

Participants next advanced to a brand description page that included information regarding, and a picture of, a particular brand of the focal product (see Figure 2). As mentioned, in addition to the extent to which consumption is public in nature, social risk is likely to be affected by the degree to which products are visibly branded. Thus, to

**FIGURE 2**  
**Brand Information Page for the**  
**Sony Brand Combination Vacuum**

SONY is a well-respected manufacturer of consumer products including desktop and notebook computers, TVs, digital cameras, and the Playstation video game system. Sony has also just launched a line of combination vacuums. The Sony combination vacuum (pictured below) will be offered with everything you need to get up and running right out of the box, including a supply of chemical dry cleaning compound and attachments for cleaning hard-to-reach places, furniture, and drapes.

*QUESTION. Imagine that you are going to buy a combination vacuum. Given that the fair price for an average combination vacuum is \$500, what would you be willing to pay for the Sony combination vacuum pictured below?*

*I would be willing to pay \$ \_\_\_\_\_ for the Sony combination vacuum.*



Pictured:  
 Combination vacuum  
 by Sony™

strengthen the social risk manipulation, the brand name was (was not) displayed on product in the high- (low-) social-risk condition.

Each participant considered a brand extension by 1 of 10 brands into one of the two product categories. "Manipulating" fit between a brand and an extension category via the careful selection of existing brands has been widely practiced (e.g., Aaker and Keller 1990; Klink and Smith 2001; Morrin 1999). We selected 10 existing brands, each of which serves as a low-fit brand in one product category and a high-fit brand in the other category. A pretest ( $N = 19$ ) was used to select 5 brands that are of high fit with the smart display extension category and of low fit with the combination vacuum category and another set of 5 brands that are of high fit with the vacuum category and of low fit with the smart display category. Specifically, the five

brands of high combination vacuum fit and low smart display fit are Black & Decker, Braun, Maytag, Whirlpool, and 3M. The brands of high smart display fit and low combination vacuum fit are Apple, IBM, Microsoft, Nokia, and Sony. To strengthen perceptions of fit, participants were exposed to a list of products affiliated with the brand that fit well with one, but not the other, extension product category. For instance, participants were informed that Sony makes "desktop and notebook computers, TVs, digital cameras, and the Playstation video game system."

The brand information page concluded with the following question: "Given that the fair price for an average combination vacuum (wireless smart display) is \$500 (\$1,000), what would you be willing to pay for the Sony combination vacuum pictured below?" In the low-financial-risk condition, participants were reminded that they were to indicate the total, not monthly, price for the product. Price premiums were measured as the percentage difference between the fair price for an average brand and the price participants indicated they are willing to pay for the branded extension (for similar approaches, see Kalra and Goodstein 1998; Monroe 1990). Thus, participants indicating that they would be willing to pay \$1,200 for the Sony smart display have expressed a 20%  $([1,200 - 1,000]/1,000)$  price premium. Baseline prices for the smart display (\$1,000) and vacuum (\$500) are based on market prices and a pretest ( $N = 19$ ) in which participants indicated fair prices of \$973 and \$489 for the smart display and vacuum, respectively.

The stimuli were designed to emulate a basic first-stage new product concept test. In such tests, managers often must rely on written or verbal product descriptions because they cannot develop prototype models until a new product concept has cleared early stage-gate hurdles. One of these hurdles is demonstrating that buyers will actually pay a reasonable price for the proposed product. Thus, by using written product concept stimuli, our results should be useful to managers interested in developing new product opportunities for a brand. In addition, providing detailed attribute descriptions and pictures of extension products should reduce the effects of the "brand" on brand extension outcomes relative to simply pairing brand names with an extension category (Klink and Smith 2001). Thus, our study design provides a conservative test of brand extension effects.

*Manipulation checks and covariate variables.* Following the measure of the dependent variable, participants responded to a set of items designed to assess the veracity of the fit and risk manipulations. The scale assessing fit between the existing brand and the extension category included items relating to needs, usage situations, manufacturing, and overall similarity. The items measuring performance risk considered both the likelihood and magnitude of negative outcomes. Similarly, the items measuring



perceived financial risk assess the level of financial commitment and the potential financial loss. The items regarding social risk addressed both the likelihood that others will evaluate the product and the degree to which the product is visibly branded. Appendix B displays the items, reliability coefficients, and literature on which the manipulation checks are based.

As mentioned, the use of real brands introduces existing perceptions into participants' estimate of the price premium they are willing to pay. Therefore, a six-item measure ( $\alpha = .896$ ) of perceived brand quality was collected to use as a covariate in the data analysis. The items measuring perceived brand quality, which are from scales used by Keller and Aaker (1992) and Bousch and Loken (1991), are exemplified by an item asking participants' level of agreement with the statement "Overall, Sony products are high in quality."

Price premiums are likely to vary with consumers' level of interest with a product category. To control for this variance, a four-item version of Zaichkowsky's (1985) measure ( $\alpha = .768$ ) of category involvement was also collected as a covariate. A typical item asked the extent to which products in the extension category are important.

Finally, price premiums may be affected by the favorability of consumers' evaluations of brand extensions. Our concern, however, is with the sensitivity of brand extension price premiums to purchase risk. Thus, we wanted to control for the effect of extension evaluations. We therefore include an evaluative measure that is operationalized as interest in purchasing the extension. The three scale items ( $\alpha = .804$ ) are typified by "If I were to buy a wireless smart display, I would consider the Sony brand" and are based on a similar scale employed by Dodds, Monroe, and Grewal (1991).

## RESULTS

### Manipulation Checks and Covariates

Principal components factor analysis with varimax rotation identified an eight-factor solution reflecting fit, financial risk, performance risk, two dimensions of social risk (the extent to which others will observe product use and the degree to which the brand is recognizable), perceived brand quality, category involvement, and brand extension evaluation. Manipulation checks via independent sample *t*-tests indicate that fit ( $t = 13.57, p < .001$ ), financial risk ( $t = 4.45, p < .001$ ), performance risk ( $t = 3.95, p < .001$ ), and both dimensions of social risk ( $t = 3.74, p < .001$  for publicness of consumption and  $t = 3.61, p < .001$  for brand visibility) all differ in the intended directions.

The effects of fit and the three category risk characteristics on consumer willingness to pay price premiums were

**TABLE 1**  
Cell Means (Standard Deviations) for the  
Fit  $\times$  Risk Interactions

	Fit					
	Low		High		Row Mean	
	M	SD	M	SD	M	SD
Financial risk**						
High	-9.04	36.02	14.49	33.85	2.26	36.81
Low	-6.25	36.46	0.86	30.43	-2.74	33.67
Performance risk						
High	-8.80	33.80	10.20	31.20	0.70	33.78
Low	-6.76	38.40	5.81	34.67	-0.82	37.10
Social risk*						
High	-7.45	33.12	15.86	31.93	3.47	34.49
Low	-8.06	39.28	0.91	32.32	-3.55	36.11
Column mean	-7.75	36.12	8.07	32.88	0.06	35.42

\* Interaction with fit is significant at  $p < .10$ . \*\* Interaction with fit is significant at  $p < .05$ .

assessed via an analysis of covariance (ANCOVA). The model accounted for 20.1 percent of the variance in price premiums. To assess how differences across the two product categories may affect price premiums, product category was first tested as a factor in the model. The pattern of results regarding price premiums was consistent across the two product categories used in this study, and product category did not interact with any of the other independent variables in the model. Therefore, in testing our predictions, we collapsed the data across product categories and retained product category as a covariate. The composite measures of perceived brand quality and category involvement were also included in the model as covariates to control for variation in brand perceptions and personal relevance of the category. Not surprisingly, category involvement,  $F(1, 287) = 7.23, p < .05, \eta^2 = .027$ , is positively related to the willingness to pay a premium for a brand extension. Consumers' evaluation of a brand extension also has a positive effect on price premiums,  $F(1, 287) = 4.20, p < .05, \eta^2 = .015$ . Price premiums are positively related to perceived brand quality at  $p < .10, F(1, 287) = 2.01, \eta^2 = .007$ . That this effect is not stronger is not surprising given that we purposely selected brands that would be viewed favorably with respect to quality and hence had low variance on this dimension (the mean quality rating, on a 5-point scale, ranged from 4.30 to 4.91). Table 1 reports cell and variable-level descriptive statistics.

### Tests of Hypotheses

*Main effects.* Hypothesis 1 predicts that fit will have a positive effect on the price premium an extension can obtain. Recall that price premiums are measured relative to the average product in the category. Thus, a positive

(negative) price premium reflects a willingness (an unwillingness) to pay more than the category average. In support of Hypothesis 1, the price premium for high- and low-fit brands was 8.07 percent and -7.75 percent, respectively,  $F(1, 287) = 9.34, p < .05, \eta^2 = .034$ . In fact, the negative premium indicates that participants were willing to pay less than the average category price in the low-fit condition. Hypothesis 2a predicts that financial risk will have a positive effect on brand-extension price premiums. Although not reaching traditional levels of significance (i.e.,  $p < .05$ ), Hypothesis 2a is supported at  $p < .10, F(1, 287) = 2.46, \eta^2 = .009$ . Participants indicated a willingness to pay a 2.26 percent price premium in the high-financial-risk condition and a -2.74 percent premium in the low-financial-risk condition. Price premiums did not differ across the high- (0.70%) and low- (-0.82%) performance-risk conditions,  $F(1, 287) = 0.08, p > .10, \eta^2 = .000$ , and hence Hypothesis 3a. Hypothesis 4a predicts that the willingness to pay a price premium for a brand extension will increase as social risk increases. The difference in price premiums across the high- (3.47%) and low- (-3.55%) social-risk conditions are directionally consistent with Hypothesis 4a but are significant at  $p < .10, F(1, 287) = 1.89, \eta^2 = .007$ .

*Interaction effects.* The interaction effects concern the moderating role of extension category risk characteristics on the relationship between fit and brand-extension price premiums. Per Hypothesis 2b, fit should become more important as the financial risk of the extension category increases. The Fit  $\times$  Financial Risk interaction was significant at  $p < .05, F(1, 287) = 3.89, \eta^2 = .014$ . Hypothesis 2b suggests that fit should positively affect price premiums regardless of the level of financial risk but that the effect of fit should be greater when financial risk is high. Price premiums differed between the low- (-9.04%) and high- (14.49%) fit conditions when financial risk is high ( $t = 4.17, p < .05$ ). However, there was no effect of fit on price premium when financial risk is low (low-fit price premium = -6.25, high fit = 0.86,  $t = 1.22, p > .10$ ).

Hypothesis 3b predicted a positive interaction between fit and performance risk. This hypothesis is not supported,  $F(1, 287) = 0.65, p > .10, \eta^2 = .002$ . Hypothesis 4b predicted that the positive effect of fit will increase as the social risk of the category increases. The interaction term is significant at  $p < .10, F(1, 287) = 1.89, \eta^2 = .007$ . Analysis of means across levels of social risk indicates that the difference in price premiums between the low- (-8.06%) and high- (0.91%) fit conditions is not significant when social risk is low ( $t = 1.50, p > .10$ ). On the other hand, price premiums differ between the low- (-7.45%) and high- (15.86%) fit condition when social risk is high at  $p < .05 (t = 4.27)$ .

## DISCUSSION

An important component of a brand's value is tied to its contribution to launching new products. In this study, we focused on one aspect of a brand's financial contribution to new products that has received minimal attention—the extent to which it affects price. It is widely assumed that attaching a well-established brand to a new product enables a firm to capture a higher price than would be possible if the same product were launched using a new brand or a brand of lesser equity. Despite the intuitive appeal of this belief, by considering the basic premise on which it is based, it is possible to define several conditions that can be expected to greatly affect the magnitude of brand-extension price premiums. In the present study, we argued that brand-extension price premiums depend on (a) the ability of a brand to reduce the risk associated with an extension in a particular category as determined by the fit between the brand and the category and (b) the degree of perceived risk associated with the product category in question.

Our results suggest that fit with the extension category, social risk, and financial risk all affect brand-extension price premiums. Our a priori expectation was that brand-extension price premiums would be positively related to fit. Furthermore, we expected that the degree to which brands with high extension category fit are rewarded in terms of a price premium would be magnified as each type of category risk increases. However, a positive fit-price premium relationship holds only in product categories meeting a certain risk profile. Most notably, price premiums differed as a function of fit only when the extension category is one with high financial or social risk. Thus, care should be taken when interpreting the significant main effect of perceived fit.

Our findings have numerous implications for marketing theory. The influence of variables relating to both brand and product category characteristics on perceptions of brand extensions has been previously investigated. However, our research is the first to consider the impact of such variables on price premiums. Consideration of price premiums is particularly relevant to marketing theory due to the importance of this variable in models assessing the financial value of brands (e.g., Aaker 1996; Keller 1993; Park and Srinivasan 1994). Our research augments that of Smith and Park (1992) by further highlighting specific product category characteristics that are likely to affect the financial contribution of brands and hence, assessments of their value.

In addition to pointing out the conditions that will affect the financial returns for a brand extension, the results also highlight the value of using price premiums as a measure of brand extension attractiveness. Research on brand

extensions typically considers consumers' perceptions of the likely quality of the extension product. We found that brand-extension price premiums are related to the favorability of extension evaluations (a covariate in our study). More important, consumers are also willing to pay a premium to reduce risk as is confirmed by the effects of category risk that emerge even after controlling for the effect of brand extension evaluations. As such, consumer willingness to pay a premium for an extension appears to provide a unique measure of how attractive consumers find the extension.

While characteristics of both the brand and the product category influence price premiums, the interaction between the brand and the category appears to be crucial in determining consumers' evaluations of the value of brand extensions. Typically, research considers the interaction between brand and category simply as fit. Furthermore, studies on the role of risk in brand extensions have considered the ability to reduce risk as an outcome of fit (e.g., DelVecchio 2000) or independently consider the effects of fit and the general level of risk on consumers' perceptions of brand extensions (e.g., Gronhaug et al. 2002). Our results indicate that managers and researchers alike must consider the interplay between a brand's fit with an extension category and the level of each of the specific types of product risk.

Our results are associated with relatively small effect sizes. However, as we noted in the opening of this article, in the context of pricing decisions, modest effect sizes are not trivial. Small changes in price can have substantial effects on a company's bottom line. Furthermore, in many instances in our data, there were sizable differences in means that were not associated with a correspondingly large effect size. This was due to the high within-cell variance in price premiums. This suggests that brand-extension price premiums are being affected by variables that are extraneous to our model. In general, this speaks to the complexity of consumers' responses to risk. In focusing on product category risk, we considered contextual characteristics that affect brand-extension price premiums. By offering a framework of consumer risk processing that includes individual-level variables, Conchar et al. (2004) provided guidance for specifying a more complete model of risk response. For instance, consumer characteristics such as risk affinity, ambiguity intolerance, and self-confidence are likely to affect how consumers process purchase risk and, in turn, the price premium they are willing to pay to mitigate risk.

In addition to its contributions to marketing theory, this research holds important implications for marketing managers. For brand managers, this research suggests strategies for extension category selection and brand-extension pricing. In motivating this study, we mentioned that exten-

sions of well-established brands have been shown to obtain greater rates of new product trial (introductory market share) with less investment in marketing communications (Smith 1992; Smith and Park 1992), but that these effects *vary dramatically* across characteristics of the extension product category. In fact, in some circumstances, the positive effects of brand extensions on both market share and advertising efficiency completely disappear (Smith and Park 1992). Similarly, our results suggest that established brands that extend into categories that are relatively low in risk should not expect to be rewarded with premium prices. For instance, for the high-fit brands, under conditions of low financial risk (premium = 0.86%,  $t = 0.23$ ,  $p > .40$ ) or low social risk (premium = 0.91%,  $t = 0.24$ ,  $p > .40$ ), price premiums did not differ statistically from zero. Thus, in categories defined by low risk, price premiums are likely to be the hard-fought result of heavy investments in advertising and/or the development of a highly superior product. Thus, strong brands, even when fit with the category is high, should be careful to consider the consequences of releasing a product that may be forced to compete on the basis of price.

Our results also highlight the importance of the social risk inherent in the purchase and use of products. As expected, consumers appear willing to pay a premium to mitigate social risk. Therefore, brands should be rewarded if managers can expand the domain of publicly consumed products that are visibly branded. However, our manipulation of social risk does not allow us to tease apart the role of publicness of consumption and the prominence of brand name in the category. To the extent that these dimensions of social risk can independently affect price premiums, brand managers should strive to make branding more visible on the array of less public products found within consumers' homes.

The results of this study must be interpreted in light of inherent limitations. The first stems from the use of student participants. In addition to convenience, a student sample offers the homogeneity that marketing practitioners search for when defining target markets. This homogeneity allows managers to tailor product offerings and communications, and marketing researchers to tailor stimuli (i.e., selection of relevant product categories and favorably perceived brands). However, the student sample limits our ability to generalize the results to people of vastly different demographic profiles. Second, the study relies on written and pictorial product descriptions. In an actual market, consumers may engage in considerable external information search by attending to advertising, eliciting recommendations, and engaging in product inspection prior to trial (Conchar et al. 2004). Accessing this type of information may dilute the importance of brand names and the information held in brand-related schemas. Future re-

search that addresses the manner in which individual differences and product experience affect consumers' reactions to brand extensions would improve the ability of managers to select profitable extension categories and market segments. Third, our hypotheses were built on the expectation that the brands being extended are viewed positively. Consistent with this expectation, only brands toward which the sample is positively predisposed were selected for study. It is important to recognize that brands vary in perceived quality. In practice, we would not expect weak brands to be widely extended, but some brands of lesser "strength" than those used in our study could be extended. As such, the absolute price premiums we observe in this study may be limited to brands of very high perceived quality.

#### APPENDIX A

##### Product Description Page for the Combination Vacuum Category Including Risk and Fit Manipulations

Note: sections in *italics* below represent the high/low manipulations for performance, social, and financial risk.

#### Description

Combination vacuums unite a standard vacuum, a steam vacuum, and a chemical dry cleaning vacuum in one convenient machine. Combination vacuums allow you to match the cleaning need with the best cleaning option. The standard vacuum is great for loose dirt, dust, and debris. The steam option is ideal for ground-in carpet stains and the dry cleaning version offers the perfect solution for odors in carpet, furniture, drapes, or even clothes.

Combination vacuums are typically offered with everything you need to get up and running right out of the box, including a supply of chemical dry cleaning compound and attachments for cleaning hard-to-reach places, furniture, and drapes.

Manufacturers of combination vacuums view college students as a key market since it is likely to save them from losing security deposits and/or paying for professional carpet cleaning. They also feel that this type of vacuum will fit in with students' lifestyles (i.e., potential home ownership) in the years after they graduate.

*Consumer Electronics* magazine had this to say about the various brands:

Combination steam and chemical dry vacuums are relatively *difficult/simple* products to produce. This may explain why the quality difference between brands is *significant/minimal*. Extensive tests of these vacuums that considered performance, ease of use, and durability resulted in overall evaluations that displayed *considerable/little* variation across brands. Since combination vacuums are so versatile, they are likely to be used on many products in your home. *Although not highly common, malfunctions have been known to stain or tear carpet, furniture, and other items/Although combination vacuums are likely to be used on*

*many products in your home, they all include safeguards to protect against staining or tearing carpet, furniture, and other items.*

Consumer Electronics also reminds you to recognize that when buying a combination vacuum, whatever choice you make will come under scrutiny by your family, friends, and even acquaintances who are likely to want to see, learn more about, and perhaps use this new product/This information not presented in the low social risk condition.

*Cost. \$500 is a fair price for an average combination vacuum/\$500 is a fair price for an average combination vacuum. However, new low-interest financing programs allow you make monthly payments of 2% of the base price (e.g., \$10 a month for a \$500 vacuum).*

#### APPENDIX B Scale Items and Alphas

*Fit* ( $\alpha = .911$ )

- Wireless smart displays are similar to other Sony products in terms of the needs they satisfy (Smith and Park 1992).<sup>a,b</sup>
- Wireless smart displays are similar to other Sony products in terms of the needs situations in which they are used (Smith and Park 1992).
- Wireless smart displays are similar to other Sony products in terms of the skills needed to manufacture them (Smith and Park 1992).
- Wireless smart displays are similar to other Sony products in terms of their physical features (Smith and Park 1992).
- There is a good fit between Sony and wireless smart displays (Keller and Aaker 1992).
- It is logical for Sony to make wireless smart displays (Keller and Aaker 1992).
- It is appropriate for Sony to make wireless smart displays (Keller and Aaker 1992).

*Financial Risk* ( $\alpha = .827$ )

- Considering the investment involved, purchasing a wireless smart display would be risky (Grewal, Gottlieb, and Marmorstein 1994).
- Given the financial expenses associated with purchasing a wireless smart display, there is substantial financial risk (Grewal et al. 1994).
- I would worry about the cost of purchasing a wireless smart display.
- Given the financial commitment, I may regret purchasing a wireless smart display.
- I could lose a significant amount of money if I ended up with a smart display that didn't work.
- Due to the financial commitment, I am unlikely to buy a smart display.

*Performance Risk* ( $\alpha = .745$ )

- I am certain that a wireless smart display would work satisfactorily (Bearden and Shimp 1982). (r)
- You are likely to have problems with the performance of your smart display.



- If a wireless smart display malfunctions, the consequences can be fairly severe.
- Buying the wrong smart display can lead to very negative outcomes.
- You need to be careful when buying a smart display since a lot can go wrong when you use it.
- There is little that can go wrong when using a smart display. (r)

#### Social Risk—Evaluation by Others ( $\alpha = .814$ )

- If I buy a wireless smart display, other people are likely to know that I own and use it (Bearden and Etzel 1982).
- If I buy a wireless smart display, other people are likely to evaluate my purchase.
- If I buy a wireless smart display, people will see me using it.
- If I buy a wireless smart display, people will ask me questions about it.
- If I buy a wireless smart display, I will probably have to explain to some people how I chose it.

#### Social Risk—Brand Prominence ( $\alpha = .752$ )

- When you look at a wireless smart display, it is easy to identify the brand name of the manufacturer.
- It is easy to tell one brand of smart display from another by looking at it.
- Brand names are likely to be prominently displayed on wireless smart displays.

NOTE: (r) indicates a reverse-coded item.

a. Items were measured on 7-point scales anchored by *strongly disagree*/*strongly agree*.

b. Items were developed by the authors for this study unless otherwise noted.

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